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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,369	09/30/2003	Kazuhiro Ishiguchi	243176US2	4331
22850	7590	12/16/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			LIVEDALEN, BRIAN J	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	
			2878	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/673,369

Applicant(s)

ISHIGUCHI, KAZUHIRO

Examiner

Brian J. Livedalen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 11, 13 and 14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6, 11, 13 and 14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 09 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muthu et al. in view of Bennett (5406172).

In regard to claims 1 and 13, Muthu discloses (fig. 1) a light source unit (8) including a light source having a plurality of light source elements (22, 28, 24) for emitting different wavelengths of light; a light mixer (26) for mixing light emitted by the plurality of light source elements; a light detector (30) for detecting light for the light mixer capable of detecting a plurality of different wavelengths of light; and a light source controller (34) for controlling luminance of each of the plurality of light source elements based on values detected by the light detector. Muthu fails to disclose a temperature controller that keeps the source at constant temperature and approaching a given value. However, Bennett discloses (fig. 1) a temperature controller (36) that is used to keep the temperature of the source constant (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a controller to keep the temperature constant in order to reduce the effects of ambient temperature and assist the controller system that maintain the desired output.

In regard to claims 2 and 3, Muthu in view of Bennett discloses the light source controller controls luminance of each of the plurality of light source elements so that each detected value in the wavelength range approaches a given value (paragraphs 0019 and 0020); and a temperature detector (32) for detecting temperature of the light source, wherein the temperature controller operates so that a value detected by the temperature detector approaches a given value (Bennett, column 2, line 57 – column 3, line 12).

In regard to claim 4, Muthu in view of Bennett further discloses in Muthu (fig. 1) that the light source controller (34) controls luminance of each of the plurality of light source elements so that the light source unit has substantially constant chromaticity (paragraph 0025).

In regard to claim 5, Muthu in view of Bennett further discloses in Bennett (fig. 1) that the temperature controller (36) changes a temperature value to be maintained in the light source based on a temperature value detected by the detector (fig. 1, Muthu, 32), and the light source controller controls the light source elements to have luminance corresponding to the temperature to be maintained (Bennett, column 2, line 66 – column 3, line 12).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muthu et al. in view of Bennett (5406172) as applied to claim 1 and in further view of Beretta (US 5831686).

In regard to claim 6, Muthu in view of Bennett discloses (fig. 1) a light source unit as set forth above. Muthu in view of Bennett is silent regarding a light detector comprising N number of optical sensors corresponding to each of N number of colors. However, Beretta discloses a light detector comprising N number of optical sensors corresponding to each of N number of colors (column 7, lines 13-28). It would have been obvious to one of reasonable skill in the art at the time the invention was made to include the multiple sensors of Beretta to the light source unit of Muthu in view of Bennett to increase the speed of the controlling process.

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muthu et al. in view of Bennett (5406172) in further view of Rand et al. (US 6521879).

In regard to claims 11 and 14, Muthu discloses (fig. 1) a light source unit (8) including a light source having a plurality of light source elements (22, 28, 24) for emitting different wavelengths of light; a light mixer (26) for mixing light emitted by the plurality of light source elements; a light detector (30) for detecting light for the light mixer capable of detecting a plurality of different wavelengths of light; and a light source controller (34) for controlling luminance of each of the plurality of light source elements based on values detected by the light detector and the temperature detector (32) so that the values for each wavelength reach a given value (paragraphs 0019 and 0020). Muthu fails to disclose a temperature controller that keeps the source at constant temperature and approaching a given value. However, Bennett discloses (fig. 1) a

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temperature controller (36) that is used to keep the temperature of the source constant (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a controller to keep the temperature constant in order to reduce the effects of ambient temperature and assist the controller system that maintain the desired output. Muthu in view of Bennett is silent regarding the specific utility of the light source unit. However, Rand teaches that a light source unit that emits different wavelengths of light using LEDs and optical feedback is used for the light source of a flat panel display for displaying images by controlling the light source (Field of the Invention). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the invention of Muthu in view of Bennett as a light source for a flat panel display in order to project images rather than white light.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-6, 11 have been considered but are moot in view of the new ground(s) of rejection.

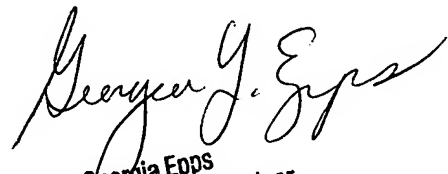
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Livedalen whose telephone number is (571) 272-2715. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bjl

  
Georgia Epps  
Supervisory Patent Examiner  
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